

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An active material for a manganese battery anode comprising:

(1) zinc for major substance without lead virtually; and

(2) 0.1 percent by mass or more and 0.8 percent by mass or less of bismuth,

said active material being ~~processed to be~~ a zinc sheet or a zinc can for anode in a range of more than 118 degrees Centigrade to less than 230 degrees Centigrade,

an average grain diameter of said zinc sheet and said zinc can being in a range of 7.8 to 25.1 μm , and

said active material which is a piece of 10 cm^2 (width times length) decreases 3.9 mg of its weight or less due to corrosion after being laid still in a constant temperature water chamber filled with an electrolyte having a concentration of 2.9 ppm nickel, 0.40 ppm cobalt, and 0.86 ppm copper for 66 hours in a temperature of 45 degrees Centigrade.

Claims 2-10 (Canceled).

Claim 11 (Previously Presented): The active material according to claim 1, purity of said zinc being 99.99wt% or more.

Claim 12 (Canceled).

Claim 13 (Currently Amended): The active material according to claim 1 [[or 11]], said processing temperature being in a range of 120 degree Centigrade to 210 degree Centigrade.

Claim 14 (Currently Amended): A manganese dry battery using said zinc sheet or said zinc can according to claim [[1]] 23.

Claim 15 (Previously Presented): The manganese dry battery according to claim 14, further comprising:

I: metallographic grain size average in the area of inside wall of anode can within 200 μm from the side contacting the separator,

O: metallographic grain size average in the area of outside wall of anode can within 200 μm from the side contacting the insulator cover tube,

a ratio of said I and said O (O/I) being in the range of 1.04 to 1.41.

Claim 16 (Withdrawn): A manufacturing method of a zinc sheet or a zinc can for a battery anode comprising:

processing an active material to be a zinc sheet or a zinc can for anode in a range of more than 99 degree Centigrade to less than 271 degree Centigrade,

producing an average grain diameter of said zinc sheet and said zinc can in a range of 7.8 to 25.1 μm

using an active material for battery anode comprising

(1) zinc for major substance without lead virtually; and

(2) 0.01 percent by mass or more and 0.7 percent by mass or less of bismuth,

or

(1) zinc for major substance without lead virtually;

(2) 0.01 percent by mass or more and 0.7 percent by mass or less of bismuth;

and

(3) one selected from 0.0003 percent by mass or more and 0.03 percent by mass or less of magnesium and 0.001 percent by mass or more and 0.05 percent by mass or less of one or more selected from zirconium, strontium, barium.

Claim 17 (Withdrawn): A manufacturing method of a manganese dry battery using a zinc sheet or a zinc can for a battery anode comprising:

processing an active material to be a zinc sheet or a zinc can for anode in a range of more than 99 degree Centigrade to less than 271 degree Centigrade;

producing an average grain diameter of said zinc sheet and said zinc can in a range of 7.8 to 25.1 μm ; and

using an active material for battery anode comprising

(1) zinc for major substance without lead virtually; and

(2) 0.01 percent by mass or more and 0.7 percent by mass or less of bismuth,

or

(1) zinc for major substance without lead virtually;

(2) 0.01 percent by mass or more and 0.7 percent by mass or less of bismuth;

and

(3) one selected from 0.0003 percent by mass or more and 0.03 percent by mass or less of magnesium and 0.001 percent by mass or more and 0.05 percent by mass or less of one or more selected from zirconium, strontium, barium.

Claim 18 (Currently Amended): An active material for a manganese battery anode comprising:

- (1) zinc for a major substance without lead virtually;
- (2) 0.1 percent by mass or more and 0.8 percent by mass or less of bismuth; and
- (3) at least one selected from 0.0003 percent by mass or more and 0.003 percent by mass or less of magnesium, 0.001-0.05 percent by mass of zirconium, 0.001-0.05 percent by mass of strontium, 0.001-0.05 percent by mass of barium, and 0.001-0.05 percent by mass of aluminum,

said active material being ~~processed to be~~ a zinc sheet or a zinc can for an anode in a range of more than ~~[[118]]~~ 100 degrees Centigrade to less than ~~[[230]]~~ 250 degrees Centigrade,

an average grain diameter of said zinc sheet and said zinc can being in a range of 7.8 to 25.1 μm , and

said active material which is a piece of 10 cm^2 (width times length) decreases 3.9 mg of its weight or less due to corrosion after being laid still in a constant temperature water chamber filled with an electrolyte having a concentration of 2.9 ppm of nickel, 0.40 ppm of cobalt, and 0.86 ppm of copper for 66 hours in a temperature of 45 degrees Centigrade.

Claim 19 (Previously Presented): The active material according to claim 18, wherein purity of said zinc is 99.99 wt% or more.

Claim 20 (Canceled).

Claim 21 (Previously Presented): A manganese dry batter using said zinc sheet or said zinc can according to claim 18.

Claim 22 (Previously Presented): The manganese dry batter according to claim 21, further comprising:

I: metallographic grain size average in the area of inside wall of anode can within 200 μm from the side contacting the separator,

O: metallographic grain size average in the area of outside wall of anode can within 200 μm from the side contacting the insulator cover tube,

a ratio of said I and said O (O/I) being in the range of 1.04 to 1.41.

Claim 23 (New): The active material according to claim 1, 11, or 13, further comprising:

at least one selected from 0.001-0.05 percent by mass of zirconium, 0.001-0.05 percent by mass of strontium, 0.001-0.05 percent by mass of barium, and 0.001-0.05 percent by mass of aluminum.